No. 8300144

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pioneer Hi-Bred International, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN

'207'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 21st day of December in the year of our Lord one thousand nine hundred and eighty-four.

Attest:

Kenneth A. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

John R Block
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO. 0581-0005

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S)
Pioneer Hi-Bred International, Inc.

2. TEMPORARY DESIGNATION

3. VARIETY NAME
207

4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code)
Plant Breeding Division
Department of Corn Breeding
P.O. Box 85, Johnston, IA 50131-0085

5. PHONE (Include area code)
515/270-3300

FOR OFFICIAL USE ONLY

PVPO NUMBER
8300144

6. GENUS AND SPECIES NAME
Zea mays

7. FAMILY NAME (Botanical)
Gramineae

FILING
DATE: 6/1/83
TIME: 8:00 ☐ A.M. ☐ P.M.

8. KIND NAME
Corn

9. DATE OF DETERMINATION
1973

FEES RECEIVED
AMOUNT FOR FILING: $1,000
DATE: 6/1/83
AMOUNT FOR CERTIFICATE: $500.00
DATE: 11/15/84

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.)
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Iowa

12. DATE OF INCORPORATION
May 6, 1926

13. NAME AND ADDRESS OF APPLICANT REPRESENATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Dr. Richard L. McConnell
Plant Breeding Division
Pioneer Hi-Bred International, Inc.
P.O. Box 85
Johnston, IA 50131-0085

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. [X] Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*

b. [X] Exhibit B, Novelty Statement

c. [X] Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*

d. [X] Exhibit D, Additional Description of the Variety

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)*
☐ Yes *(If "Yes," answer items 16 and 17 below)* [X] No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ Yes ☐ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ Foundation ☐ Registered ☐ Certified

18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?
Designated as PI0165
West Germany 11-25-77
France 02-11-80
[X] Yes *(If "Yes," give names of countries and dates)*
☐ No

19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES?
Designated as PI0165
West Germany 09-19-80
France Pending
[X] Yes *(If "Yes," give names of countries and dates)*
☐ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT
Pioneer Hi-Bred International, Inc.
by:

DATE

SIGNATURE OF APPLICANT
Richard L McConnell

DATE
May 24, 1983

FORM LMGS-470 (9-81) (Edition of 1-78 is obsolete)

C O R N

'207'

8300144

14A. Exhibit A. Origin and Breeding History

Pedigree: G3BD2/G3RZ1)X154X1X

Pioneer line '207', Zea mays L., a yellow dent corn inbred, was developed by Pioneer Hi-Bred International, Inc. from the F2 population of the single cross G3BD2 x G3RZ1. The progenitors of '207' are also proprietary inbred lines of Pioneer Hi-Bred International, Inc. The pedigree method of breeding was used in the development of this inbred as per the following.

F2 seed was obtained in the field at Homestead, Florida, during the winter of 1968-69 by selfing the F1 hybrid G3BD2 x G3RZ1. In 1969, the F2 population was grown in the field at Tipton, Indiana, and selected plants were self-pollinated. Two ears from the F2 were saved and grown ear to row during the winter of 1969-70 at Homestead. Selfed ears from ear-row number 1 were saved from the F3 population. The F4 family was grown in the nursery at Tipton during the summer of 1970 and was observed for agronomic performance (not selfed). The F4 was topcrossed to a single cross tester for the purpose of yield testing in 1971 to give an estimate of the line's general combining ability. During the winter of 1970-71, the F4 family was again grown ear to row at Homestead and selected plants were self-pollinated. In 1971, the F5 family was grown ear to row at Tipton and self-pollinated to produce F6 seed. Yield trials were also conducted at Tipton involving the testcross made in 1970 to the F4. Based on yield test performance and nursery observations, the line was determined to possess some superior qualities relative to other inbreds evaluated and was selected for advancement to the next generation. Seed was saved from ear number 4 of the F5 generation. In 1972, more hybrid combinations were tested, and the line was again self-pollinated. During the winter of 1972-73, the F7 generation was grown at Homestead and self-pollinated to give F8 seed. After summarizing the data from yield test evaluations conducted in 1972 involving testcross combinations, it was decided to name the line '207' in January 1973. Since the time the line was named, additional hybrid combinations have been evaluated and subsequent generations of the line have been grown and hand-pollinated with observations made for uniformity. An outline of the breeding profile of the inbred is attached.

'207' has shown uniformity and stability for all traits as described in Exhibit C (form LPGS-470-28) - "Objective Description of Variety." It has been self-pollinated and ear-rowed a sufficient number of generations with careful attention paid to uniformity of plant type to assure genetic homozygosity and phenotypic stability. '207' has been increased by the Parent Corn Department, Pioneer's foundation seed group, every year since 1974. The line has been increased both by hand and in isolated fields with continued observation for uniformity.

No variant traits have been observed or are expected in '207'.

Pioneer Hi-Bred International, Inc., Des Moines, Iowa, is the employer of the plant breeders involved in the selection and development of '207'. Pioneer Hi-Bred International, Inc. has the sole rights and ownership of '207'.

14A. Exhibit A. Origin and Breeding History of Corn Inbred Line '207'

Season/Year	Inbreeding Level	Nursery Location	Pedigree
Summer 1968	F0	Tipton, IN	F1 cross made.
Winter 1968-69	F1	Homestead, FL	G3BD2/G3RZ1
Summer 1969	F2	Tipton, IN	G3BD2/G3RZ1)X
Winter 1969-70	F3	Homestead, FL	G3BD2/G3RZ1)X1
Summer 1970	F4*	Tipton, IN	G3BD2/G3RZ1)X15
Winter 1970-71	F4	Homestead, FL	G3BD2/G3RZ1)X15
Summer 1971	F5**	Tipton, IN	G3BD2/G3RZ1)X154
Summer 1972	F6	Tipton, IN	G3BD2/G3RZ1)X154X
Winter 1972-73	F7	Homestead, FL	G3BD2/G3RZ1)X154X1
January 1973	Line named '207'.		
	Subsequent generations of '207' have been increased by hand-pollination and in isolated fields with observations made for uniformity.		

*Testcross made for yield testing in 1971.

**More hybrid combinations made involving '207'.

14B. Exhibit B. Novelty Statement

'207' is most similar to the public inbred line W153R. '207' differs from W153R by glume color, silk color, and cob color. '207' has a reddish-purple colored glume with a secondary color of olive-green. The glume color for W153R is green. The anther color of '207' is red, whereas the anther color of W153R is reddish-brown. Silk color of '207'is red, whereas silk color of W153R is green. '207' has reddish-orange colored cobs; W153R has reddish-brown colored cobs.

FORM APPROVED: OMB NO. 40-R3822

EXHIBIT C
(Corn)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY

CORN *(ZEA MAYS)*

NAME OF APPLICANT(S)
Pioneer Hi-Bred International, Inc.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Plant Breeding Division
Department of Corn Breeding
P. O. Box 85
Johnston, IA 50131-0085

FOR OFFICIAL USE ONLY

PVPO NUMBER 8300144

VARIETY NAME OR TEMPORARY DESIGNATION
'207'

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[2] 1 = SWEET 2 = DENT 3 = FLINT 4 = FLOUR 5 = POP 6 = ORNAMENTAL

2. REGION WHERE BEST ADAPTED IN THE U.S.A.:

[2] 1 = NORTHWEST 2 = NORTHCENTRAL 3 = NORTHEAST 4 = SOUTHEAST
5 = SOUTHCENTRAL 6 = SOUTHWEST 7 = MOST REGIONS

3. MATURITY (In Region of Best Adaptability):

(Under "comments" (pg. 3) state how heat units were calculated)

[7][3]	DAYS FROM EMERGENCE TO 50% OF PLANTS IN SILK	[1][3][9][0] HEAT UNITS
[ ][ ]	DAYS FROM 50% SILK TO OPTIMUM EDIBLE QUALITY	[ ][ ][ ][ ] HEAT UNITS
[ ][ ]	DAYS FROM 50% SILK TO HARVEST AT 25% KERNEL MOISTURE	[ ][ ][ ][ ] HEAT UNITS

4. PLANT:

[2][2][0] CM. HEIGHT (To tassel tip)

[0][8][0] CM. EAR HEIGHT (To base of top ear)

[0][7] CM. LENGTH OF TOP EAR INTERNODE

Number of Tillers:

[1] 1 = NONE 2 = 1–2 3 = 2–3 4 = > 3

Number of Ears Per Stalk:

[1] 1 = SINGLE 2 = SLIGHT TWO-EAR TENDENCY
3 = STRONG TWO-EAR TENDENCY 4 = THREE-EAR TENDENCY

Cytoplasm Type:

[1] 1 = NORMAL 2 = "T" 3 = "S" 4 = "C" 5 = OTHER (Specify) _____

5. LEAF (Field Corn Inbred Examples Given):

Color:

[3] Observed olive green
1 = LIGHT GREEN (HY) 2 = MEDIUM GREEN (WF9) 3 = DARK GREEN (B14) 4 = VERY DARK GREEN (K166

Angle from Stalk (Upper half):

[2] 1 = < 30° 2 = 30–60° 3 = > 60°

Sheath Pubscence:

[1] 1 = LIGHT (W22) 2 = MEDIUM (WF9)
3 = HEAVY (OH26)

Marginal Waves:

[2] 1 = NONE (HY) 2 = FEW (WF9) 3 = MANY (OH7L)

Longitudinal Creases:

[1] 1 = ABSENT (OH51) 2 = FEW (OH56A)
3 = MANY (PA11)

Width:

[0][9] CM. WIDEST POINT OF EAR NODE LEAF

Length:

[0][8][0] CM. EAR NODE LEAF

[1][7] NUMBER OF LEAVES PER MATURE PLANT

6. TASSEL:

[1][5] NUMBER OF LATERAL BRANCHES

Branch Angle from Central Spike:

[2] 1 = < 30° 2 = 30–40° 3 = > 45°

Peduncle Length:

[2][2] CM. FROM TOP LEAF TO BASAL BRANCHES

Pollen Shed:

[2] 1 = LIGHT (WF9) 2 = MEDIUM 3 = HEAVY(KY21)

[3] **Anther Color:** Observed deep purplish red, secondary yellow

[3] **Glume Color:** Observed reddish purple, secondary olive green

1 = YELLOW 2 = PINK 3 = RED 4 = PURPLE 5 = GREEN

6 = OTHER (Specify) _____

Pollen Restoration for Cytoplasms (0 = Not Tested, 1 = Partial, 2 = Good)

[0] "T" [0] "S" [0] "C" [ ] OTHER (Specify Cytoplasm and degrees of restoration) _____

7. EAR (Husked Ear Data Except When Stated Otherwise):

[1][6] CM LENGTH [4][1] MM. MID-POINT DIAMETER [1][1][5] GM. WEIGHT

Kernel Rows:

[2] 1 = INDISTINCT 2 = DISTINCT [1][4] NUMBER

[1] 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = SPIRAL

Silk Color (Exposed at Silking Stage):

[4] 1 = GREEN 2 = PINK 3 = SALMON 4 = RED

Husk Color:

[1] FRESH Observed pale yellow green

[6] DRY Observed pale brown

1 = LIGHT GREEN 2 = DARK GREEN 3 = PINK

4 = RED 5 = PURPLE 6 = BUFF

Husk Extention: (Harvest Stage)

[2] 1 = SHORT (Ears Exposed) 2 = MEDIUM (Barely Covering Ear)
3 = LONG (8–10CM Beyond Ear Tip)
4 = VERY LONG (> 10 CM)

Husk Leaf:

[3] 1 = SHORT (< 8 CM) 2 = MEDIUM (8–15 CM) 3 = LONG (> 15 CM)

Shank:

[1][6] CM LONG [7] NO. OF INTERNODES

Position at Dry Husk Stage:

[1] 1 = UPRIGHT 2 = HORIZONTAL 3 = PENDENT

Taper:

[2] 1 = SLIGHT 2 = AVERAGE 3 = EXTREME

Drying Time (Unhusked Ear):

[ ] 1 = SLOW 2 = AVERAGE 3 = FAST

8. KERNEL (Dried):

Size (From Ear Mid-Point):

[1][0] MM LONG [0][8] MM. WIDE [0][5] MM. THICK

Shape Grade (% Rounds)

[2] 1 = < 20 2 = 20–40 3 = 40–60 4 = 60–80 5 = > 80

8. KERNEL (Dried) :

[1] Observed translucent white
Pericarp Color: 1 = COLORLESS 2 = RED-WHITE CROWN 3 = TAN 4 = BRONZE 5 = BROWN 6 = LIGHT RED 7 = CHERRY RED 8 = VARIEGATED (Describe) _____

[1] **Aleurone Color:** 1 = HOMOZYGOUS 2 = SEGREGATING (Describe) _____

[1] Observed opaque white
1 = WHITE 2 = PINK 3 = TAN 4 = BROWN 5 = BRONZE 6 = RED 7 = PURPLE 8 = PALE PURPLE 9 = VARIEGATED (Describe) _____

[3] Observed pale orange
Endosperm Color: 1 = WHITE 2 = PALE YELLOW 3 = YELLOW 4 = PINK-ORANGE 5 = WHITE CAP.

Endosperm Type:

[3] 1 = SWEET (su1) 2 = EXTRA SWEET (sh2) 3 = NORMAL STARCH 4 = HIGH AMYLOSE STARCH 5 = WAXY STARCH 6 = HIGH PROTEIN 7 = HIGH LYSINE 8 = OTHER (Specify) _____

[2][6] GM. WEIGHT /100 SEEDS (Unsized Sample)

9. COB:

[2][4] MM. DIAMETER AT MID-POINT

Strength:

[2] 1 = WEAK 2 = STRONG

Color:

[6] 1 = WHITE 2 = PINK 3 = RED 4 = BROWN 5 = VARIEGATED 6 OTHER (Specify) Reddish-Orang

10. DISEASE RESISTANCE (0 = Not Tested, 1 = Susceptible, 2 = ~~Resistant~~ Tolerant):

[2]	STALK ROT (Diplodia)	[2]	STALK ROT (Fusarium)	[2]	STALK ROT (Gibberella)
[1]	NORTHERN LEAF BLIGHT	[1]	SOUTHERN LEAF BLIGHT	[1]	SMUT (Head smut)
[0]	SOUTHERN RUST	[1]	CORN SMUT (Common)	[1]	BACTERIAL WILT (Stewart's)
[0]	BACTERIAL LEAF BLIGHT	[2]	MAIZE DWARF MOSAIC	[0]	STUNT
[ ]	OTHER (Specify)				

11. INSECT RESISTANCT (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

[1]	CORNBORER (European)	[0]	EARWORM	[0]	SAPBEETLE	[0]	APHID
[0]	ROOTWORM (Northern)	[1]	ROOTWORM (Western)				
[0]	ROOTWORM (Southern)	[ ]	OTHER (Specify) _____				

12. VARIETIES MOST CLOSELY RESEMBLING THAT SUBMITTED FOR THE CHARACTERS GIVEN:

CHARACTER	VARIETY	CHARACTER	VARIETY
Maturity	W15 3R	Kernel Type	W15 3R
Plant Type	W15 3R	Quality (Edible)	
Ear Type	W15 3R	Usage	W15 3R

REFERENCES:

U.S. Department Agriculture. Yearbook 1937.

Corn: Culture, Processing, Products. 1970 Avi Publishing Company, Westport, Connecticut. (Numerous (Authors)

Emerson, R.A., G.W. Beadle, and A.C. Fraser. A Summary of Linkage Studies in Maize. Cornell A.E.S., Mem. 180. 1935.

The Mutants of Maize. 1968. Crop Science Society of America. Madison, Wisconsin.

Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S. Bul. 831. 1959.

Butler, D.R. 1954 – A System for the Classification of Corn Inbred Lines – PhD. Thesis, Ohio State University.

COMMENTS: Heat units are accumulated from daily temperatures as follows:
HI = Maximum air temperature in Fahrenheit, but not greater than 86.
LO = Minimum air temperature in Fahrenheit, but not less than 50.
Heat Units = (HI + LO)/2 – 50, but not less than 0.

8

14D. Exhibit D. Additional Description of '207'

'207' is a yellow dent inbred line of corn, Zea mays L.

As an inbred per se, '207' is similar to the public inbred line W153R. '207' reaches 50% pollen shed and 50% silk at 1349 and 1390 heat units, respectively. It makes hybrids with an average Minnesota relative maturity of 98 days. These hybrids are best adapted to the Northern Corn Belt or the U. S.

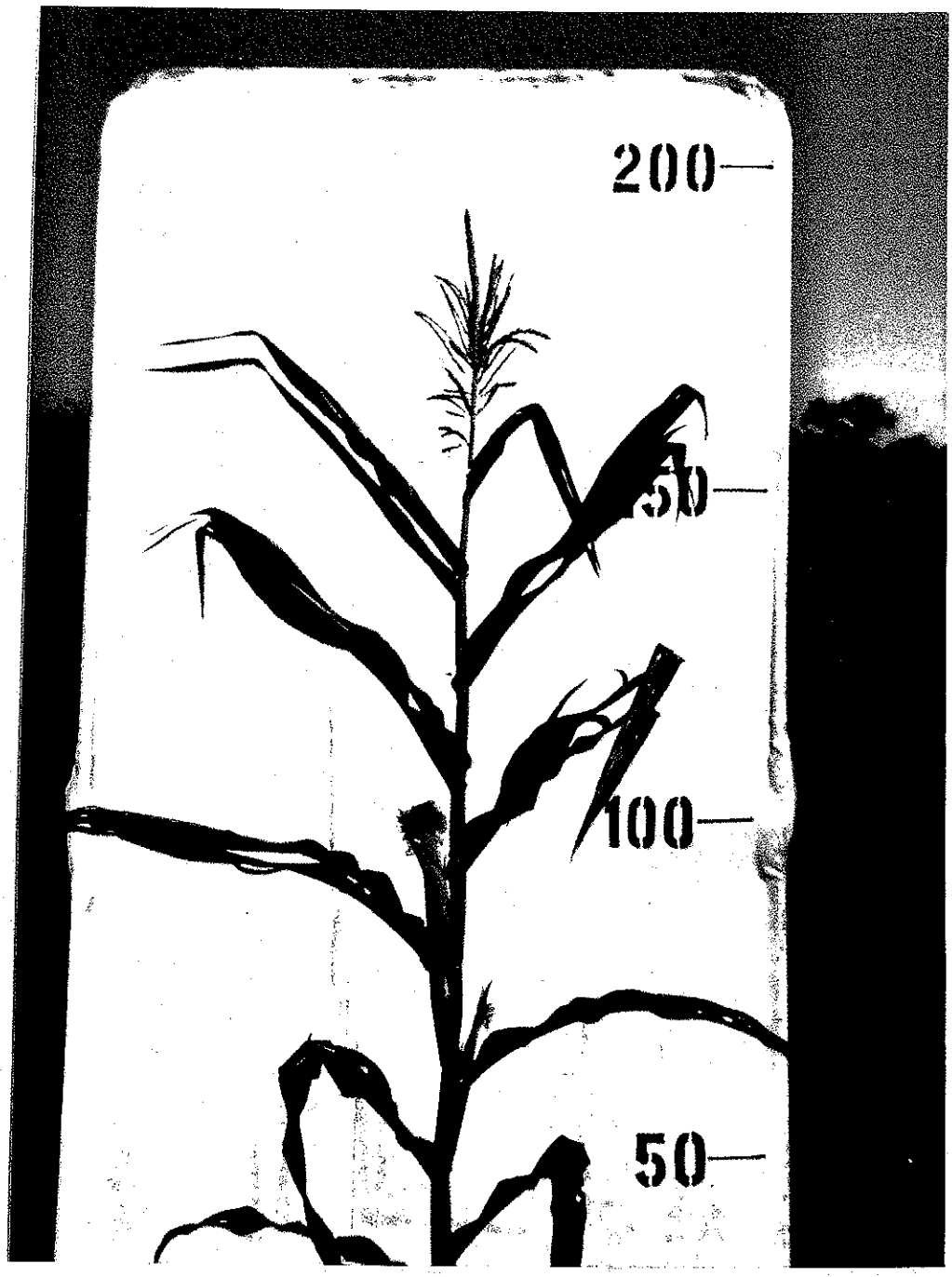
In hybrids, '207' has above average yield for its maturity and shed date. Standability (both stalk and root quality) is well above average. For its maturity, '207' contributes good late-season plant health to hybrids. Although they germinate well, '207' hybrids are slightly below average for seedling vigor. Most of the other important agronomic traits are average or better. Hybrids involving '207' are average to slightly above average for plant and ear height.

'207' has shown average to above average tolerance to Northern corn leaf blight (Helminthosporium turcicum), Helminthosporium leaf spot (Helminthosporium carbonum), eye spot (Kabatiella zeae), Goss's wilt (Corynebacterium nebraskense), MDM virus, and to corn lethal necrosis virus disease. It is below average for tolerance to Southern corn leaf blight (Helminthosporium maydis), grey leaf spot (Cercospora zeae), anthracnose (Colletotrichum graminicola), common rust (Puccinia sorghi), Stewart's bacterial wilt (Erwinia stewartii), head smut (Sphacelotheca reiliana), and sorghum downy mildew (Sclerospora sorghi).

A distinguishing characteristic of '207' is that it has a purple plumule in the embryo of the kernel. It also has the appropriate genetic makeup that results in purple anthocyanin synthesis under cool temperature conditions early in the spring. This results in purple colored seedlings when ambient day/night temperatures are in the neighborhood of 65°F/40°F for a few weeks. The purple seedling trait of '207' is passed along to its hybrids.

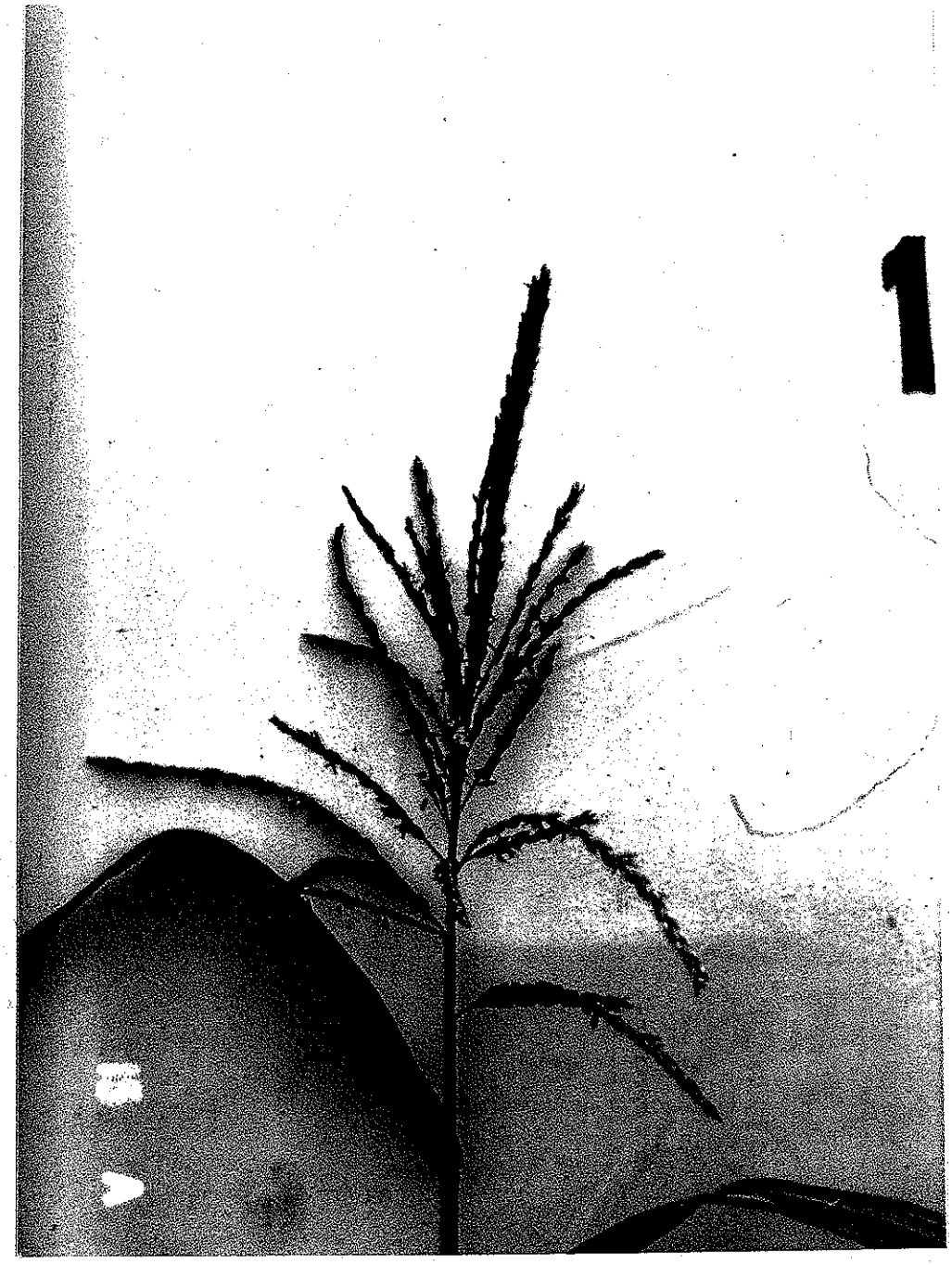
14D. Exhibit D. Additional Description of 207 (continued)

A. Whole plant



14D. Exhibit D. Additional Description of 207 (continued)

B. Tassel



14D. Exhibit D. Additional Description of 207 (continued)

C. Ear